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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/615,398	07/13/2000	Andrew C. Gallagher	80839DMW	3800

1333 7590 11/03/2004

PATENT LEGAL STAFF  
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EXAMINER

GENCO, BRIAN C

ART UNIT PAPER NUMBER

2615

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/615,398	Applicant(s) GALLAGHER ET AL.	
	Examiner Brian C Genco	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-20, 22-47 and 49-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8, 10, 12-20, 22-47 and 49-56 is/are allowed.
- 6) ☒ Claim(s) 9 and 57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

***Allowable Subject Matter***

Claims 3-6, 10, 12-20, 22, 25-34, 36-38, 41-47, 51, 54, 55, and 56 are deemed allowable as indicated in the previous Office actions.

Claims 1, 2, 7, 8, 23, 24, 35, 39, 40, 49, 50, 52, and 53 are herein deemed allowable over the prior art of record, the reasons for allowance are as follows.

Claims 1 and 23 have been amended to include the limitation "said image sensing device having a color filter array of at least three different colors overlying said photosites, said standard and non-standard photosites being associated with each of said colors". The prior art of record does not disclose nor fairly suggest the particular combination of limitations from claims 1 and 23 wherein said image sensing device having a color filter array of at least three different colors overlying said photosites, said standard and non-standard photosites being associated with each of said colors. Examiner is interpreting this limitation to mean that on the image sensing device there has to be non-standard photosites of each of the three colors as well as standard photosites of each of the three colors. Examiner notes that while it would have been obvious to one skilled in the art to have added a Bayer color filter to the image sensor of Nayar this would have resulted in all of the standard photosites being one color and the non-standard photosites being each of the three colors. Further, Examiner notes that it would have been obvious to one skilled in the art to have added a color filter to Park as noted in the rejection of claims 57 and 9 below, however, it would not have been obvious to have modified Park with Hasegawa to provide for a controller for switching between an expanding mode and a normal drive mode since the resolution of Park is not effected by the expanding mode.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 57 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 5,714,753 to Park).

In regards to claim 57 Park discloses an image capture system for generating an extended effective dynamic range from a signal provided by an image sensor, said image capture system comprising:

an image sensing device having a uniform two-dimensional array of photosites, including standard photosites with a predetermined response to a light exposure and non-standard photosites with a predetermined response to the same light exposure (e.g., Fig. 3);

an optical section exposing the image sensing device to image light, thereby causing the image sensing device to generate an image signal (e.g., the optical section is inherent with an image sensor; further, note the disclosure of the microlenses on column 2, lines 54-57); and

a processing section expanding the response of the standard photosites to increased light exposures by utilizing the image signals from neighboring non-standard photosites and

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expanding the response of the non-standard photosites to decreased light exposure by utilizing the image signals from neighboring standard photosites (e.g., column 3, lines 5-48).

Park does not disclose nor preclude that said image sensing device having a color filter array of at least three different colors overlying said photosites, said standard and non-standard photosites being associated with each of said colors.

Examiner notes that it is extremely well known in the art to provide a color filter so as to produce a color image. Official notice is taken. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have added a color filter to Park's invention in order to generate a color image. Examiner further notes that it is extremely well known to use a Bayer color filter so as to generate more data for the green color plane. Official notice is taken. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a Bayer color filter in order to generate more data for the green color plane. Examiner notes that in applying the Bayer color filter to Park's invention the standard and non-standard photosites would be associated with each of said colors.

In regards to claim 9 Examiner notes with Park's invention having a color filter the neighboring non-standard photosites are of the same color as standard photosite being processed by the processing section.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 703-305-7881 or by fax at 703-746-8325. The examiner can normally be reached on Monday thru Friday 8:30am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-308-4357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR



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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian C Genco  
Examiner  
Art Unit 2615

October 27, 2004

A handwritten signature in black ink, appearing to read 'Andrew Christensen', with a long horizontal flourish extending to the right.

ANDREW CHRISTENSEN  
SUPERVISORY PATENT EXAMINER  
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